

Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 3/13/12 at 9:00 a.m.

Objective: Provide advice to the Water Operations Management Team (WOMT) and National Marine Fisheries Service (NMFS) on measures to reduce adverse effects from Delta operations of the Central Valley Project and the State Water Project on salmonids and green sturgeon. DOSS will coordinate the work of other technical teams. DOSS notes and advice can be found at: <http://www.swr.noaa.gov/ocap/doss.htm>

DWR: Mike Ford, Andy Chu, James Gleim, Edmund Yu, Dan Yamanaka

FWS: Leigh Bartoo, Roger Guinee

NMFS: Barbara Rocco, Bruce Oppenheim, Barb Byrne, Jeff Stuart, Garwin Yip

Reclamation: Josh Israel, Russ Yaworsky

DFG: Bob Fujimura, Robert Vincik

EPA, SWRCB, USGS: not present

Agenda

1. Fish monitoring
2. Current operations
3. Review DOSS advice
4. Status of OMR tech memo

Action Item [1/3/12]: Review the DOSS section of the annual review report and provide responses regarding implementation of recommendations. ***See discussion below.**

*** Oppenheim (NMFS), Llaban (DWR), and Israel (Reclamation) will meet again to form a response to the science panel. They had one previous meeting and decided to wait until after the workshops to meet again. Oppenheim will provide information for the next meeting. Yip (NMFS) suggested that Donna Garcia be asked whether anything has been drafted as a response, particularly on DOSS. As of 3/13/12, no update.**

Action Item [1/17/12]: DWR, Reclamation, NMFS, and DFG will meet to discuss how best to include CWT information in available salvage databases, both going forward and perhaps retrospectively. Bob Fujimura, DFG, agreed to lead this effort and provide a list of what needs to be revised. **Carry. ***See update below.**

*****Fujimura is working on putting together a meeting to have different fish agencies reconcile the salvage database. As of 3/13/12, Fujimura is still working on developing a meeting date and agenda.**

Fish Monitoring: The following table presents fish monitoring data. Unless otherwise noted, reported sizes are fork length. See: <http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm>.

Location	Chippis Is. Midwater Trawl	Sacramento Kodiak Trawl	Mossdale Kodiak Trawl	Beach Seines	Knights Landing RST	Tisdale Weir RST
Sample Date	3/6, 9	3/5, 7, 9	3/5, 7, 9	3/6, 7, 9	3/7, 9, 10, 12	3/7, 9, 12
Total Catch	27	5	2	169	6	7
FR				162	5	6
WR	3					
SR				2	1	1
LFR						
Ad-Clipped Chinook						
DS	15 (61-85 mm, 2 with eggs)	1 (Garcia Bend)				
Splittail	1		2	5		
Longfin	4 (95-120 mm)					
SH (ad-clip)						
SH (wild)	4	4				
W. Temp. (avg. °F)	53.2	53.4	55.8	54.1	54.0	51.0
Flows (avg. cfs)					5509	5793
Turbidity (avg. NTU)					10.2	6.5
WR/LFR Avg. CPUE						
FR/SR Avg. CPUE					0.016	0.022

Key: FR = Fall run; LFR = Late-fall run; SR = Spring run; WR = Winter run; SH = Steelhead; DS = Delta smelt; LFS = Longfin smelt; SPTL = Splittail, CPUE = catch per unit of effort, ACT = acoustical tag

Fish Salvage Data (3/5–3/11): Reports are also posted at <ftp://ftp.delta.dfg.ca.gov/salvage>: and you can locate the table under folder “DOSS salvage tables” (you can also try <http://www.dfg.ca.gov/delta/apps/salvage/Default.aspx>) and click on “salvage FTP site”.

Chinook salmon¹: Winter run-sized ad-clipped Chinook salmon were salvaged at the CVP (weekly expanded salvage = 3) and SWP (weekly expanded salvage = 21). Winter-run-sized non-clipped Chinook salmon were salvaged at the CVP (weekly expanded salvage = 43) and SWP (weekly expanded salvage = 164). Spring-run-sized non-clipped Chinook salmon were

¹ Race of clipped salmon is determined solely by length of the fish at date criteria on date of salvage and should be treated as preliminary and may be subject to change when Reclamation and FWS reports the tag information on race.

salvaged at the CVP (weekly expanded salvage = 4), but not at the SWP. Fall-run-sized non-clipped Chinook salmon were salvaged at the SWP (weekly expanded salvage = 4), but not at the CVP. The water-year (10/1/2011 to present) salvage totals of all races of Chinook salmon at the CVP are 201 ad-clipped (loss = 153) and 128 non-clipped (loss = 103). The water-year salvage totals of all races of Chinook salmon at the SWP are 197 ad-clipped (loss = 876) and 241 non-clipped (loss = 1,049).

The water-year cumulative combined winter-run salvage is 341. The water-year cumulative winter-run loss is 1,120. For incidental take purposes, this loss represents 35% of the allowed incidental take of 3,241 juvenile winter-run (see graph on DWR website).

Steelhead: Ad-clipped steelhead were salvaged at the CVP (weekly expanded salvage = 32) and SWP (weekly expanded salvage = 32). Non-clipped steelhead were salvaged at the CVP (weekly expanded salvage = 8), but not at the SWP. The water-year salvage totals of steelhead at the CVP are 114 ad-clipped and 14 non-clipped. The water-year salvage totals of steelhead at the SWP are 75 ad-clipped and 16 non-clipped.

Delta smelt: Delta smelt were salvaged at the CVP (weekly expanded salvage = 12) and SWP (weekly expanded salvage = 28). The water-year salvage total of delta smelt at the CVP is 98. The water-year salvage total of delta smelt at the SWP is 88. No larval delta smelt < 20 mm FL were reported in larval fish samples through 3/11/2012 at the CVP and through 0900 hours on 3/8/2012 at the SWP.

Longfin smelt: Longfin smelt were salvaged at the CVP (weekly expanded salvage = 44) and SWP (weekly expanded salvage = 12). The water-year salvage total of longfin smelt at the CVP is 56. The water-year salvage total of longfin smelt at the SWP is 12. Larval longfin smelt were found in larval fish samples at the CVP during from 3/5/2012 to 3/11/2012 and at the SWP from 2100 hours on 3/1/2012 to 0900 hours on 3/8/2012.

Splittail: Splittail were salvaged at the CVP (weekly expanded salvage = 12) and SWP (weekly expanded salvage = 8) facilities. The water-year salvage total of splittail at the CVP is 235. The water-year salvage total of splittail at the SWP is 3,818.

White sturgeon: No white sturgeon were salvaged at either facility. The water-year salvage total of white sturgeon at the CVP is 64. No white sturgeon have been salvaged at the SWP this water year.

Green sturgeon: No green sturgeon have been salvaged at either facility this water year. There has been no report from Red Bluff Diversion Dam (RBDD) recently on juvenile green sturgeon passage this year. Last summer was a good brood year for green sturgeon larva; juveniles should be coming down now.

Action Item: Jeff Stuart (NMFS) will check on whether any green sturgeon have been caught at RBDD.

Coded Wire Tagged (CWT) Salvage and Loss (see table below): Only two late-fall release groups from the Coleman National Fish Hatchery increased in percent loss since last week. The 1/3/12 production release increased from 0.116 to 0.124, and the 1/20/12 spring-run surrogate

release increased from 0.401 to 0.486. As a reminder, the 1/20/12 spring-run release is not being used this year for implementing an action (see 1/24/12 DOSS notes). Several CWTs in the winter-run-size category have turned out to be from the Mokelumne River hatchery fall-run released October 27, 2011.

Coleman Hatchery Late-Fall Run and Livingston Stone Winter-Run Chinook Loss at the Delta Fish Facilities, 2011/2012

Release Date	CWT Race	Release Site	Release Type	Confirmed Loss	Number Released	Total Entering Delta	% Loss ¹	First Concern Level	Second Concern Level	Date of First Loss	Date of Last Loss
12/16/2011	LF	Battle Creek	Production	117.70	394,700	n/a	0.030	n/a	n/a	1/11/2012	3/4/2012
12/23/2011	LF	Battle Creek	Spring Surrogate	2.92	62,400	n/a	0.005	0.5%	1.0%	1/18/2012	1/31/2012
1/3/2012	LF	Battle Creek	Production	557.20	448,600	n/a	0.124	n/a	n/a	1/19/2012	3/8/2012
1/13/2012	LF	Battle Creek	Spring Surrogate	52.17	80,800	n/a	0.065	0.5%	1.0%	1/31/2012	2/18/2012
1/20/2012	LF	Battle Creek	Spring Surrogate ²	97.16	20,000	n/a	0.486	n/a	n/a	1/30/2012	3/6/2012
2/9/2012	W	Redding	Production	0.00	194,000	96,525	0.000	0.5%	1.0%	-	-

For Chinook lost 10/1/2011 through 3/11/2012

SWP coded-wire tags read 10/1/2011 through 3/11/2012

CVP coded-wire tags read 10/1/2011 through 3/11/2012

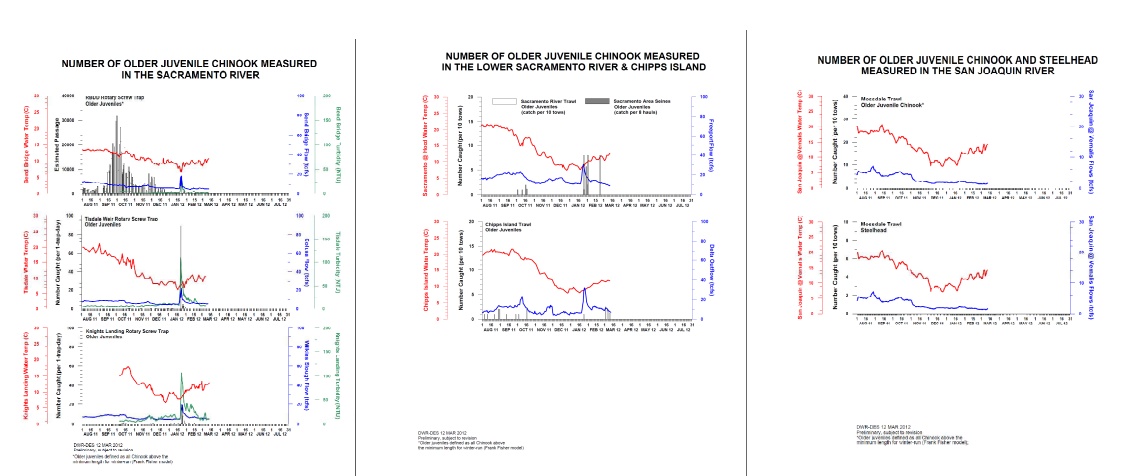
¹LF % Loss = (Confirmed Loss/Number Released)*100; W % Loss = (Confirmed Loss/Total Entering Delta)*100

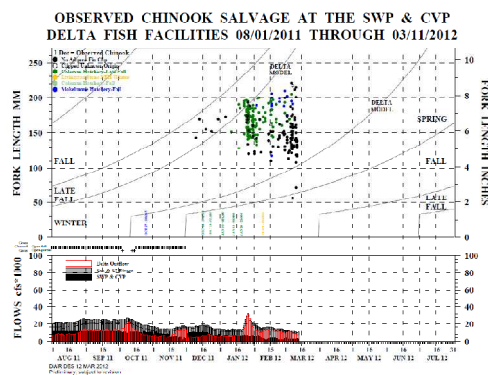
²Because of the equipment malfunction that stranded a large proportion of the releases in the gravel, this 3rd surrogate release is tracked for monitoring and information only and not for compliance with Action IV.2.3.

DWR-DES Revised 3/12/2012

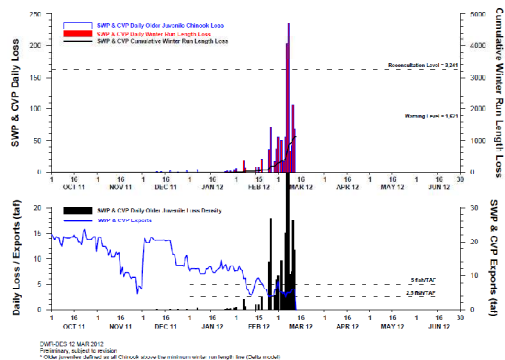
Preliminary, subject to revision

Below are the weekly graphs prepared by DWR (Llaban) for the capture of older juvenile salmon in the Sacramento River and Chipps Island trawls from October 2011 through March 12, 2012.





NON-CLIPPED WINTER RUN & OLDER JUVENILE CHINOOK LOSS AT THE DELTA FISH FACILITIES 01 OCT 2011 THROUGH 11 MAR 2012



Operations (3/13/12)

SWP		CVP	
Exports (cfs)			
Clifton Court Forebay	600	Jones Pumping Plant	2,000
Reservoir Releases (cfs)			
Feather - Oroville	1,750	American - Nimbus	1,100 (holding)
		Sacramento - Keswick	3,900 (reducing to 3,250 cfs by 3/20)
		Stanislaus - Goodwin	300
Reservoir Storage (in TAF, % of capacity)			
San Luis (SWP)	988 (93)	San Luis (CVP)	726 (75)
Oroville	2,511 (71)	Shasta	3,194 (71)
New Melones	1,966 (81)	Folsom	392 (40)
Delta Operations			
DCC	Closed as of 12/1/11	Sacramento River at Freeport (cfs)	9,529
Outflow Index (cfs)	7,700	San Joaquin River (cfs) at Vernalis	1,448
Total Delta Inflow (cfs)	11,652	OMR (daily) (CDEC) (cfs)	
Water Temperature (°F)		OMR 5 day (CDEC) (cfs)	-2,236
X2 (km)	78	OMR 14 day (CDEC) (cfs)	-2,166
E/I (%)	22.4		

Weather forecast: This week's large storms are expected to be colder and should produce more snowpack. More rain is predicted for next week. It was predicted that the Feather River basin would get 10 inches of precipitation this week. It is forecast that the Sacramento River will rise 13 feet this week as a result of the storms.

Delta conditions: Balanced. Meeting X2 at Collinsville.

Smelt Working Group (SWG) update: The group reviewed the data and discussed the expected conditions over the next week. The existing conditions are sufficiently protective; no changes in current operations are necessary for both longfin and delta smelt protection.

Loss-density trigger: For this week, it was noted that the preliminary daily Chinook loss density was below the second-stage trigger (i.e., 5.0 fish/TAF) for Monday 3/12. This will be confirmed by DFG later this afternoon. If it remains below the trigger for the next 2 days, OMR flows can be relaxed to first-stage trigger flows of no more negative than -3,500 cfs per RPA Action IV.2.3. A DOSS conference call is scheduled for Thursday at 1:00 p.m. to check loss-density numbers from 3/12 through 3/14/12. DWR will notify NMFS by email with the numbers as early as possible on Thursday 3/14/12. If loss density on any of the 3 days is greater than the second-stage trigger (5.0 fish/TAF), NMFS will send out an email to DOSS to continue operating OMR at no more negative than -2,500 cfs; there would be no need for the conference call in the afternoon.

A question was raised about the effects on fish of the lower exports at the SWP and whether anyone has been tracking those effects. Most of the pumping right now is at the CVP; the SWP has decreased pumping to 600 cfs. The export pumping is being shifted between the two projects to balance the Coordinated Operations Agreement and DWR is looking into project flexibility in continuing to do this pursuant to the Joint Stipulation. DFG mentioned that there is also a delayed response from the fish based on the shift in export pumping that might not be seen in salvage for a few days after the shift. Steelhead density was still less than 1.0 fish/TAF last week.

Joint Stipulation technical memo: Byrne (NMFS) sent a copy of the draft technical memo to the DOSS group this morning for review. The OMR level for the first 2 weeks in April will be determined based on forecasting of the DSM2 run that will be done 1–2 weeks from now. The bulk of the technical memo is an explanation of how the triggers work and how the DSM2 models work with examples. If DOSS members have substantive suggestions about insertion points or time, please respond by noon Wednesday (3/14/12). If there are other minor changes, please send by COB Wednesday.

It was noted that there was a concern that shifting to higher exports into the latter part of May would result in take of a large number of delta smelt, which would concern FWS and could have negative repercussions into June. It was suggested that NMFS let its management know of this concern. It was also noted that the SWG would most likely alert NMFS of this issue so that it can be avoided.

There will be a rollout meeting on Thursday to discuss the technical memo in more detail so that everyone is apprised about what actions are proposed. This opportunity was suggested to allow those not on the planning committee (e.g., stakeholders) the opportunity to review the technical memo; however, comments would not be solicited at this point. It was also suggested that DOSS members pass on information about the technical memo (sent out by Byrne) to their respective managements to keep them apprised.

OMR proposed schedule: Briefly, it is proposed that OMR flows would change every 2 weeks from April 1 to May 30 and the suggested operations would be:

1st 2 wks in April: -2,500 cfs to -3,500 cfs based on the DSM2 model forecast.

2nd 2 wks in April: -3,500 cfs.

1st 2 wks in May: -1,250 cfs.

Last 2 wks in May: -5,000 cfs.

DOSS advice to WOMT and NMFS: The DOSS working group advises to continue implementing RPA action IV.2.3 (OMR flow of no more negative than -2,500 cfs) until there are 3 consecutive days below the loss-density trigger of 5.0 fish/TAF for older juvenile Chinook. Based on Monday's preliminary data, the earliest that the action could be relaxed would be Thursday, 3/15/12. DOSS will review the salvage data Thursday and determine whether to continue the action.

Next meeting: Unless a special conference call is needed on 3/15/12, the next regular DOSS conference call will be on 3/20/12 at 9:00 a.m.